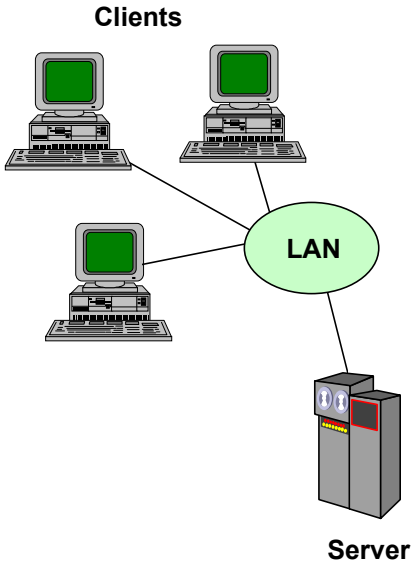
Section 1.2 Data Collection and Distribution (DCDS) Overview

Data Collection and Distribution System Description

The client/server technology allows State employees to utilize personal computers (PCs) and Graphical User Interface (GUI) screens to capture data and route the information to a central location for approval and validation. This can be done without the need to print hard copy reports. The "client," which is the personal computer, collects the data, and sends it to the "server," which manages the data as files. The Graphical User Interface (GUI) screens have been designed to use the features of Microsoft Windows which includes mouse and keyboard navigation using dropdown menus, push buttons, and tab folders to move to different windows. Traditional mainframe system architectures do not offer the flexibility to perform this type of processing. Additionally, client/server technology provides the State with the flexibility to enhance and maintain the system in the future. The following shows the architecture of a client/server system.

Client/Server Architecture



- Client/Server computing allows processing on multiple machines to perform a single function.
- Client/Server environment involves the use of computers and process servers connected by a network.
- The server computer provides data and information management and application processing.
- The clients (personal computers) access the server on a network. The client runs local application programs and presents the application via GUI screens.
- Applications are broken down into logical sequences where part is run on the clients PC and part on the server. Each can be modified independently.
- The network provides a means of communication.

The Data Collection and Distribution System interacts with 3 external systems: Human Resource Management Network (HRMN), Department of Management and Budget's Vehicle Travel Services (VTS), and the Financial Administration and Control System (FACS). DCDS information is also available on the Management Information Database (MIDB), which is a reporting tool for DCDS. Data flows to and from the external systems and is validated in DCDS. The employee time and attendance data is forwarded to HRMN for payroll calculation and used during labor distribution. Equipment usage data is sent to MTD or FACS, as applicable. Activity reporting data remains in DCDS and is available to departments for reporting or downloading to agency systems. In addition to the external data flows, data is also exchanged between the component processes within DCDS. This exchange of data is accomplished via the DCDS client/server database. The on-line database allows timely updating and inquiry for all agencies.

An agency security administrator for each agency maintains information required to access the windows of DCDS security. The system security and login procedures allow departments to enter and view information based on specific access for each user. The system provides update or inquiry access that reflect the way security profiles are set up within the departments. Agencies have the option to use all components of DCDS or use combinations of the components that are unique to each agency. The systems' flexibility allows each agency to select specific options for the components they choose. For example, agencies have the option to report time and attendance at the employee or TKU level. Some of the benefits of the Data Collection and Distribution System include:

- Increases data accuracy through on-line validation of data entry at the source
- Reduction in paper intensive processing
- Elimination of stand-alone agency systems used to capture time and attendance data
- Allows on-line approval of data
- Utilizes user-friendly screens

The Data Collection and Distribution System is comprised of the following functional areas:

The functional components of the DCDS system are described as follows:

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Earnings History - These windows provide access to employee earnings history from 1/96 to 3/2001. Data is stored on a pay period by pay period basis. It includes details of hours worked and payroll deductions. Earnings history after 3/2001 is available on the Human Resource Management Network (HRMN).

Adjustments - These windows provide the functionality to make adjustments to the data collected by DCDS after it has been processed. Adjustments include changing coding blocks, timesheet hours or hours types, and equipment usage entries. Adjustments to pay are processed in HRMN.

Labor Distribution - These windows distribute labor costs (gross earnings including overtime and fringe benefits) based on hours recorded on time sheets for various hours types and coding blocks. The payroll amounts DCDS uses are calculated by HRMN.

Data Collection - These windows provide the core functionality of DCDS which is the data collection functionality. The four primary categories of the data collected include: time and attendance data, equipment usage data, and activity reporting data.

System Functions - These windows provide functionality to maintain data necessary to support the implementation of system security and user notification.

Parameters - These windows provide the functionality to maintain the various parameters, edits and screens used during the collection of time and attendance, equipment usage, activity reporting, and payroll adjustment data. These windows also maintain the parameters used to distribute the gross earnings and fringe benefit costs.